EXHIBIT 10
DATE 1-21-11
HB 68

Montana State Legislature
Human Services Committee
Hearing on HB68
1/21/2011

We are opposed to HB 68, we support HB161

Imagine yourself as a Vice-Principal at a high school such as Belgrade. Sitting across from you is a student that is high from pot he bought legally with his medical marijuana card. You ask the student what are his plans for the future, college, trade school? His answer is, I'm going to be a care giver at a medical marijuana dispensary. He can make more money doing this than with a four year business degree and our current law allows it.

The same goes for the teacher looking out her classroom window, across the school parking lot, a few feet away, Seniors enjoying their lunch of medical marijuana laced cookies. And there is nothing anyone can do.

Students with medical marijuana cards or access to medical marijuana through a parent sell 5$ hits at lunch time.

These are actual situations that are happening in our Montana high schools. They come as a direct result of the approval of medical marijuana and the school administrators and teachers are powerless to do anything about it. It is the responsibility of the legislature to adequately fund schools. It is also their responsibility to not take actions that impede the schools. All schools are required to meet Adequate Yearly Progress guidelines. How can they expect to meet those requirements if a majority of their time is spent in a continuous cycle dealing with kids using medical marijuana?

This bill is an attempt to control and restrict medical marijuana so that some of the things I just described to you may be reduced. However, it has a fundamental flaw, it is trying to fix something that should never have been passed in the first place. Medical Marijuana as defined in this bill is a falacy there is nothing medical about it. Since the Pure Food and Drug Act was approved in 1906, any drug marketed in the U.S must undergo rigorous scientific testing. This ensures the safety and therapeutic value, are supported by clinical evidence to keep dangerous drugs off the market. [1] Marijuana is not approved by the FDA. Despite the current administrations support of more liberal state marijuana laws, the federal government still discourages research into its medicinal uses. One reason, even though some patients swear by it, there is no good scientific evidence that legalizing marijuana's use provides any benefits over current therapies. [2] A 36 year study by the University of Mississippi, that has the only federally approved marijuana plantation, has shown that marijuana is not medically viable as a medicine. These studies have proven that marijuana is an insidious, physically damaging, mind altering, psychologically addicting drug that makes users irrational and emotionally unstable while damaging their immune system. [9]

Many legitimate Doctors choose not to recomend marijuana because it causes more known health complications,and addictive effects in addition to the patient's original condition, which are more dangerous than legal anti – emetics. [3], [4]

Medical marijuana already exists. It's called Marinol. It is found to relieve the nausea, vomiting, and loss of appetite associated with treatments for cancer and AIDS patients. Marinol has been studied and approved by the medical community and the FDA. The active ingredient in marijuana – THC – is

scientifically regulated in Marinol. There are four times the level of tar in a marijuana cigarette, for example, than in a tobacco cigarette. [5] A low dose of marijuana is 1 joint that costs about $8.57. The same dose of Marinol costs about $9.05. However, most insurance companies cover marinol which costs the patients $0 to $20 co-pay per prescription. [6]

The Montana Pharmacy Association of professional pharmacists will not support dispensing marijuana until medical research proves the drug's effectiveness. Pharmacists are allowed to dispense only drugs that are FDA approved. There is currently no accepted medical use for marijuana according to the U.S. Food and Drug Administration. Marijuana is still considered an illegal drug by the federal government. [7]

The initiative that put medical marijuana in place was passed with the idea of giving relief to people with no other alternative. There are other alternatives. The persons truly in need of relief are the ones most hurt by medical marijuana. People are being sold, uncontrolled, untested, unproven product with no safety controls, at a premium. I have spoken to many people that voted for the initiative, and they say, if they knew then, what they know now, they would never have voted for it. The initiative was written and funded by the Marijuana Policy Project, a California based organization. They paid $554,505.00, 99% of the cost to promote the initiative. It never was a Montanan driven initiative. We are unknowingly supporting the illegal drug market that is in partnership with our meth problem in Montana, and this will get worse.

Robert Stutman, a former special agent of 25 years with the U.S. Drug Enforcement Administration, states that there are three absolute facts that many Americans fail to understand. First, law enforcement will never make drugs completely unavailable in the U.S. Second, most adults know almost nothing about the world of kids and drugs. And third, drugs are devastating our communities, homes and workplaces, and we fail to deal with this in a way that will make a substantial change. [8] Now as a legislative body there is a chance to make change. If you approve this bill you further legitimize the use of marijuana. You send the message to our children and the public as a whole that marijuana really isn't bad for you when in reality study after study tells of the harmful permanent affects of marijuana use, especially when started at a young age.

In conclusion:

- Medical marijuana is in our schools and is having a detrimental affect on education and safety.
- Medical marijuana is uncontrolled, untested, unsafe, and is not approved by the FDA.
- There is an FDA approved safe alternative to Marijuana called marinol that most insurance companies cover the costs of.
- Marijuana is known to be harmful to those that use it.
- Marijuana is considered an illegal drug by the Federal Government.
- The current law was passed because of mis-leading ads funded by an out of state special iterest group.
- HB68 attempts to control and restrict marijuana is a band-aid to a bad law.
- The best solution is to repeal the medical marijuana law.

We ask that you do what is truly right for all the people of this state by not passing this bill and working towards the repeal of medical marijuana use.

Respectfully,

Joel & Charlie Murdy
1003 E. Silverbow
Belgrade, MT 59714

Attached to this letter are newspaper and magazine articles, other actual accounts, & investigative reports on how to get a green card within 8 minutes, that give even more insight to the detrimental affect medical marijuana is having on our children, families, and society as a whole.

Caveat: If Law cannot be repealed then we support HB 68

Sources

1. 5/9/2009 USDEA – Drug Enforcement Administration.
2. 1/8/2010 The New York Times, Children, Families, Health, and Human Services Interim Committee.
3. 9/9/2003 Dr. Barry Dworkin Family Medicine University of Ottawa.
4. 12/3/2001 Dr. Eric Voth, Chairman of Institute on Global Drug Policy.
5. 1/13/2011 http://www.justice.gov/dea/ongoing/marinolp.html The National Cancer Institute.
6. http://medicalmarijuana.procon.org
7. 6/10/2010 Jennifer McKee Gazette State Bureau.
8. The Stutman Group
9. http://www.drugabuse.gov/infofacts/marijuana.html

Cons Medical Marijuana:

1. There are safer drug alternatives.

2. Many legitimate Doctors choose not to prescribe marijuana because it causes more known harm/health complications in addition to the patient's original condition. (9/9/2003 Dr. Barry Dworkin Family Medicine University of Ottawa.)

3. Marijuana's harmful and addictive effects are for more dangerous than legal anti – emetics like Compazine, Tigan Zofran, Kytril, or Metclopramide. (12/3/2001 Dr. Eric Voth, Chairman of Institute on Global Drug Policy.)

4. Synthetic THC, is FDA approved prescription (marinol)as an anti-emetic agent for chemotherapy patients & patients with AIDS, Wasting Syndrome, who do not respond to other drugs. It is a pure substance in a stable, quantified dose differing from crude marijuana. (5/17/2001 Drug Watch International)

5. Since 1906, the Pure Food and Drug Act, any drug marketed in the U.S must undergo a mandated clinical testing process as evidence. This ensures the safety and therapeutic value, the clinical evidence to keep dangerous drugs off the market. (5/9/2009 USDEA – Drug Enforcement Administration)

6. Medical Marijuana already exists. It is a Pharmaceutical product called Marinol, widely available through prescription. (5/9/2009 USDEA)

7. Despite Obama's administrations support of more liberal state marijuana laws, the federal government still discourages research into its medicinal uses. One reason, even though some patients swear by it, there is no good scientific evidence that legalizing marijuana's use provides any benefits over current therapies. (1/8/2010 The New York Times, Children, Families, Health, and Human Services Interim Committee)

8. Montana Pharmacy Association of professional pharmacists will not support dispensing marijuana until medical research proves the drug's effectiveness and adequate dosage guidelines. Pharmacists are allowed to dispense only drugs FDA approved. There is currently no accepted medical use for marijuana according to the U.S. Food and Drug Administration. Marijuana is still considered an illegal drug by the federal government. (6/10/2010 Jennifer McKee Gazette State Bureau)

9. The steady rise in Montanans acquiring "green cards" goes parallel with teenagers using and 18 year old's getting a Dr.'s O.K online to get "green cards". The current system is being abused. (Safe Community Safe Kids. Org)

10. Medical Marijuana is typically purchased by individuals in 1/8 ounce quantities, which is 3.5 grams at about $60.00 per 1/8 ounce, moderate to high quality ($17.14 per gram.) Sav-On Drug in L.A., for example, sell a Marinol pill 5 milligram pill at $2.05 a mg. Most patients use 5.0 mg pills. AIDS patients typically use 5 mg per day.

Cancer patients typically use 15 mg or 5 mg 3x per day to 20 mg or 5 mg 4x per day. Most insurance companies cover marinol which costs the patients $0 to $20 co-pay per prescription. (http://medicalmarijuana.procon.org)

11. Medical marijuana already exists. It's called Marinol. It is found to relieve the nausea and vomiting associated with chemotherapy for cancer patients and to assists with loss of appetite with AIDS patients. Smoked or cooked contains more that 400 different chemicals, including most of the hazardous chemicals found in tobacco smoke. Marijuana adds to individuals health problems. Marinol has been studied and approved by the medical community and the Food and Drug Administration (FDA). Any drug that is marketed in the United States must undergo rigorous scientific testing. The approval process keeps unsafe, ineffective and dangerous drugs off the market. It is no different than doing the same with tobacco.
There are four times the level of tar a marijuana cigarette, for example, than in a tobacco cigarette. Morphine has proven to be a medically drug. The active ingredient – THC – is scientifically regulated in Marinol. Studies of marijuana was conducted by the Institute of Medicine by the National Academy of Sciences. In 1999, the Institute did not recommend the use of smoked marijuana, but active ingredients in marijuana could be isolated and developed into a variety of pharmaceuticals, such as Marinol. (1/13/2011 http://www.justice.gov/dea/ongoing/marinolp.html The National Cancer Institute)

12. A number of studies have shown that the active ingredient, THC, in Marinol, has potential in treating Alzheimer's Disease, decreasing neuropathic pain and damage in MS. And Parkinson's Diseases, reducing tics in Tourette Syndrome. (1/13/2011 http://www.Tetrahydromcannabinol/wikipedia.org)

13. A 2008 German review , found marijuana users having a greater risk of developing psychosis and schizophrenia. A 2009 review showed a higher risk of homicide and suicide. (1/13/2011 http://www.Tetrahydromcannabinol/wikipedia.org)

14. Between December 31, 2009 and June 30, 2010 there has been a 167 % increase in green cardholders (of medical marijuana) alone. (1/4/2011 laws.leg.mt.gov/laws)

15. The University of Mississippi is the nation's only federally approved marijuana plantation Researchers must apply to the National Institute on Drug Abuse to use it and must get approvals from a Public Health Service panel, the Drug Enforcement Administration, and the Food and Drug Administration. (1/19/2010 The New York Edition)

Teen marijuana use up, tobacco down

By MELISSA HEALY
Los Angeles Times

WASHINGTON _ After nearly a decade in decline, marijuana is making a strong comeback among high school students, with growing use and softening attitudes about the risk of smoking pot starting in eighth grade. For the first time since 1981, high school seniors reporting they had smoked marijuana in the last 30 days outnumbered those who said they smoked cigarettes.

The National Institute on Drug Abuse on Tuesday issued its 2010 "Monitoring the Future" survey _ a yearly look at kids' drug and tobacco use patterns and attitudes. The remarkable crossover of the lines for marijuana use and tobacco use is a victory for public-health campaigns aimed at stamping out cigarette smoking among teens. But the federal office that tracks illicit drug use said it is driven by an uptick in youth marijuana use that is broad based and likely to continue.

In 2010, 21.4 percent of high school seniors said they had smoked pot in the month before, while 19.2 percent reported they were cigarette smokers. Twelfth-graders who acknowledged the daily use of marijuana reached its highest point since the early 1980s, 6.1 percent, and the numbers of eighth- and 10th-graders smoking pot daily (1 percent and 3 percent, respectively) also rose in 2010 over the previous year. Those students' attitudes about the risks of marijuana use have shown steady softening in recent years, suggesting to researchers that as eighth- and 10th-graders advance toward graduation, rates of pot smoking will continue to climb.

Dr. Nora Volkow, director of NIDA, called the rise in daily use of marijuana particularly troubling, given that more frequent use, and by teens whose brains are still developing, has been shown to be more damaging to learning and memory than less frequent use.

Attitudes toward the use of the club-drug Ecstasy also softened among eighth- and 10th-graders, as did use. Researchers called the increase an example of "generational forgetting," in which a lull in use is followed by an uptick in use by younger people who were not exposed to anti-drug messages.

Seniors were a little less likely this year than last to report they had abused the prescription pain medication Vicodin (8 percent had done so in the previous year, vs. 9.7 percent in 2009), although illicit use of the opioid painkiller OxyContin held steady, and was up among 10th-graders.

Pot, however, outpaced all of those, with roughly 1 in 3 high school seniors reporting they have smoked marijuana in the last year.

Boz. Chronicle 12/15/10 Save

burn out

Think getting high is harmless fun? *Teen Vogue* reports on pot's hidden dangers.

At first glance, Alana* seems like anything but a typical pot smoker: Model-pretty, vivacious, and smart, the eighteen-year-old is enrolled in a competitive program at New York University and has won national accolades for her community service projects. But if you ask her about her smoking habits, she admits to sparking up a joint every now and then: "I've smoked pot over a dozen times, and I have a lot of friends who smoke daily. It's not a big deal at all."

That kind of laid-back attitude toward marijuana is common and is helping fuel a frightening trend, says the National Institute on Drug Abuse (NIDA). Their 2009 Monitoring the Future survey found that the rate of marijuana use among teens, which had been steadily falling for nearly two decades, is slowly edging upward, even as cigarette smoking is on the decline. For example, 15.9 percent of tenth graders said they used pot in the past month, compared with 13.8 percent in 2008. Experts believe that recent news coverage of the legalization of medical marijuana may be contributing to these worrisome stats. "There's the thought that if it's being used legally, it can't be that bad, which is false," explains Nora Volkow, M.D., director of NIDA. "In those cases, it's being prescribed by a physician for specific circumstances and at very particular doses—after all, it is a powerful drug," adds Cynthia J. Mears, D.O., an adolescent specialist at Children's Memorial Hospital in Chicago.

Certainly, the latest research on marijuana confirms that getting high can cause physical and mental effects beyond just feeling mellow. For starters, the marijuana available today is much more potent than that of the past—and can even be secretly laced with more dangerous drugs like crack cocaine and PCP. "When you buy marijuana, you never really know what you're getting," warns Mears. Volkow adds, "We've seen an upswing in the number of emergency room admissions related to marijuana use." In addition, pot interferes with learning by impairing the brain's memory center, the hippocampus. "You won't be able to memorize information you're normally able to," says Volkow.

Furthermore, science is shedding more light on the complex psychiatric effects of marijuana, including what's known as amotivational syndrome, which is characterized by a loss of interest in activities. Lab tests have found that exposure to cannabinoids from pot during adolescence can directly affect the brain's reward system, making it less receptive, according to Volkow. "This means the same things that excited you in the past, like hanging out with your friends, will be less fun. Basically, smoking pot can change who you are," she says.

Some teens get high as a way to escape from pressure of everyday life, but marijuana only worsens the problem, she adds, saying, "Your body's naturally produced chemicals [called endogenous cannabinoids] help buffer your brain's stress response, and repeatedly getting high inhibits their production. When you're no longer under the effects of marijuana and you're also not producing your own cannabinoids, it makes you even more susceptible to stress"—which motivates you to light up again, creating a vicious cycle. Daily pot consumption is also linked to depression and anxiety, according to a study published in *Neurobiology of Disease*. Indeed, despite the humorous treatment marijuana often gets in movies and among friends, the truth is no laughing matter. "Your growing brain is like a fine-tuned instrument, susceptible to long-lasting changes. Using marijuana is like mortgaging it," says Volkow. "You're going to pay a price." —JANE SHIN PARK

**Name has been changed.*

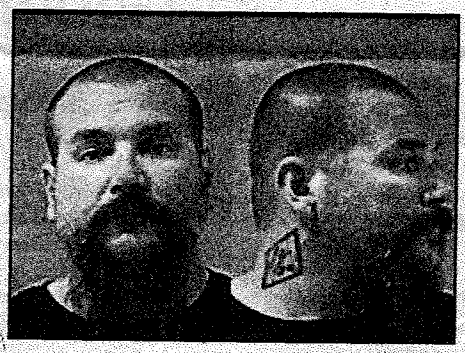
Livingston man indicted as part of Outlaws motorcycle gang

BIG SKY NEWS SERVICE

A 46-year-old Livingston man was arrested in an undisclosed location in Park County early Tuesday morning -- part of a nationwide roundup of 27 leaders from a notoriously violent motorcycle gang.

John "Bull" Banthem, a "long-time Livingston area resident," is president of a prospective Outlaws motorcycle gang, Park County Attorney Brett Linneweber said Wednesday.

"He was actively recruiting members and trying to establish a chapter with influence between Livingston and Butte," Linneweber said. "The public should be aware, this is not a recreational biker group but an established dangerous and violent gang that engages in a wide range of crimes including murder, assault, extortion, witness intimidation, narcotics distribution and weapons violations."



BANTHEM

Due to gang activity at the group's "clubhouse," a tattoo parlor on Park Street in Livingston, the shop had been shut down by Montana Rail Link, the building's owner, Linneweber said.

There have been multiple assault reports between gang members and individuals in the region, he added, but said he couldn't comment further on the ongoing investigation.

Banthem and 26 others were indicted in federal court in Virginia on charges ranging from conspiracy to commit violence, witness tampering, felony possession of firearms, drug trafficking and racketeering.

In February, at an Outlaws gathering in Waterbury, Conn., Banthem told undercover agents about his "plan to establish a large marijuana distribution network from Montana to Maryland," the indictment says.

The document also states that during a boss meeting in Lexington, N.C., when plans for an Outlaws function in Bozeman was discussed, Banthem also "described how every member of the Montana chapter has a medical marijuana card and access to high grade marijuana."

Banthem was indicted on racketeering charges Wednesday, though he had been arrested a week earlier in Iowa when authorities there found he had five pounds of marijuana in his vehicle. Banthem had arranged to sell the marijuana to an undercover Outlaws member in Virginia for $25,000.

In March, Banthem sold nearly three pounds of the drug to an undercover agent in Virginia, court documents say.

The several-year investigation resulted in the arrest of 27 people, including the group's national president, Jack "Milwaukee Jack" Rosga, 53, of Wisconsin, and others in Maine, North Carolina, Tennessee, South Carolina and Virginia, according to a press statement from the United States Attorney's Office in the Eastern Virginia District.

The Outlaws planned multiple acts of violence against rival motorcycle gangs, particularly the Hell's Angels Club.

Brad Beyersdorf, spokesperson for U.S. Bureau of Alcohol, Tobacco, Firearms and Explosives, whose agents were leading the investigation, couldn't comment on the ongoing investigation Wednesday.

However, he, Linneweber and Peter Carr of the U.S. Attorney's Office all confirmed the investigation is ongoing in Montana and elsewhere.

"These investigations are typically long term," Beyersdorf said. "Oftentimes years and years."

The Outlaws typically represent their membership through distinctive markings on leather or denim vests, often including a diamond-shaped "one-percenter" patch.

"This one-percenter designation was in response to a proclamation issued in the 1940s by the American Motorcycle Association that 99 percent of persons in motorcycle clubs were law-abiding citizens," the indictment explains. "The one-percent patch signifies that the Outlaws member is in the other one percent, that is, not a law-abiding citizen."

Whitehall caregiver arrested for pot

A Whitehall man stopped for speeding on Interstate 90 Wednesday morning was arrested after a Montana Highway Patrol trooper found 12 ounces of marijuana and 40 grams of hashish in his car, according to court documents.

However, David S. Liddick, 30, told Montana Highway Patrol Trooper Blaine Heavner he was a medical marijuana caregiver, but did not have his identification card with him, according to the trooper.

Heavner stopped Liddick on the highway near Belgrade around 9:15 a.m. Wednesday for driving 84 mph in a 75 mph zone, according to the court documents.

The trooper "detected a strong odor of marijuana" in the man's vehicle, he reported.

Liddick was arrested, charged criminal possession of dangerous drugs with the intent to distribute and taken to the Gallatin County jail.

He was released Thursday on his own recognizance.

From Chronicle news sources

VALLEY NEWS

City to consider law banning public pot use

BY MICHAEL TUCKER
STAFF WRITER

In light of the medical marijuana boom, Belgrade officials are in the process of drafting an ordinance that would ban public use of the drug, city officials said Monday.

The topic came up as a discussion item during the regular Belgrade City Council meeting Monday and city officials said an ordinance is necessary to regulate the gray areas of the state law.

During a public meeting this month when the commercial medical marijuana facilities were banned from city limits, many residents had additional concerns, Councilwoman Anne Koentopp said.

"When you listened to what the people said, the ban alone didn't just do the job," she said.

In a nutshell, the ordinance would only allow medical marijuana use on private property and out of public sight, according to city officials.

And the council is supportive of the idea.

Councilwoman Connie Campbell voted against banning commercial pot operators from city limits, but said marijuana use should remain indoors.

"I don't want to see people smoking it in public," Councilwoman Connie Campbell said. "They need to do that at home."

> "I don't want to see people smoking it in public. They need to do that at home."
> – Councilwoman Connie Campbell

Belgrade Chief of Police E.J. Clark said the law would resemble the open container ordinance currently on the books.

"I don't know of any other drug that the doctor would recommend for you and tell you to share with someone else," he said. "It's not going to be consumed in any way that it can be shared with another party. You really don't want someone out there smoking on the sidewalk and a little kid is walking around inhaling it either."

The ordinance would also mirror impaired driving laws to prevent passing the effects of a passenger smoking onto the driver, Clark said.

"If the passenger is smoking, then the driver is smoking," he said. "If the state says the patient can use it, then that's fine, but only the patient is going to use it and not anyone else."

City Manager Joe Menicucci said Clark and City Attorney Rick Ramler will sit down in the coming weeks to hammer out an ordinance. The group will compare similar rules around the state to glean information.

In other business Monday, the council approved a first reading to abandon a portion of Grogan Street at the intersection of Spooner Road in front of Lalla Chadwick's home.

According to city records, Karp approved Chadwick's plan to erect a fence on the piece of ground. But Public Works Director Steve Klotz filed a complaint since the land is on public right of way.

"Klotz is trying to get people to move stuff out of the right of way and Karp was approving people to put a fence up in the right of way," according to city records.

A similar plot was abandoned in 2005 just north of the area in question.

In the end, the council approved the resolution of intent July 6 and the first reading Monday. A public hearing is scheduled August 16.

Medical pot group defies state ban on video exams

By MATT VOLZ
Associated Press

1/14/2011

HELENA — An advocacy group is defying the state medical board's ban on using video teleconferences to examine people seeking medical marijuana cards, saying the medium is necessary for people who don't have access to a doctor.

The Missoula-based Montana Caregivers Network connects doctors with would-be patients by using the Internet video service Skype in what the advocacy group calls TeleClinics.

The state Board of Medical Examiners ruled in November that those examinations alone do not meet standards of care for certifying medical marijuana patients.

But the Montana Caregivers Network, which shut down its mass patient screenings last year after the board warned that participating physicians must make full patient examinations, is taking a stand against halting the video examinations.

Exams/from A1

"The Board's position does not equate to law," the group wrote in its newsletter released Wednesday. "The TeleClinic service is vital in keeping medical marijuana accessible for patients in rural areas who cannot find a physician in their limited communities."

The advocacy group, founded by Jason Christ, has been one of the main organizations driving Montana's boom in medical marijuana. There were 27,292 medical marijuana patients registered with the state Department of Public Health and Human Services as of December. That's compared to 7,339 registered patients in December 2009.

Dr. Dean Center, a board member and Bozeman physician, bristled at the group's comments.

"This is certainly a provocative statement. Mr. Christ has previously demonstrated that he is more interested in notoriety than in what is in the best interest of people" who seek to use medical marijuana, Center told The Associated Press on Thursday.

To be a registered medical marijuana patient in Montana, a person must submit an application to the state health department, along with a doctor's certification that they have a debilitating medical condition.

Christ has said the video conferences are necessary not just for rural residents, but for people in chronic pain not able to visit a doctor. Also, relatively few doctors are willing to provide the certifications for medical marijuana use.

The group advertises the video exams on its website: "Got a computer? You can visit the Doctor, online, and get your green card. Doctors are available all day long, every day!"

Public pot use should be banned

Recently, the city of Belgrade imposed a ban on commercial medical-marijuana businesses, meaning only those that had applied for licenses before a March moratorium could operate here.

The ban means that commercial growers and dispensaries can't set up shop in Belgrade, save for the four or five that were already licensed to do so. The ban does not extend to registered medical-marijuana users, who can grow up to six plants in their own homes for their own use.

And the ban doesn't cover medical-marijuana users walking the streets of Belgrade while smoking pot. Since the voters of Montana made medical marijuana legal in 2004, users of the drug have been free to use their medicine when and where they see fit, within the confines of existing laws.

Now, the city of Belgrade is drafting an ordinance to restrict the public use of marijuana. Unlike the ban on commercial growers, a public-use rule is a good idea.

Jason Crist, head of the Missoula-based Montana Caregivers Network, might disagree. This is the man who smoked pot on the steps of the state Capitol, and who publicly advocates for the public use of the drug. His argument is simple: We don't tell prescription drug users where they can or can't use their medicine and shouldn't restrict medical-marijuana patients' rights to do the same. WHAT ABOUT THESAME CIGELETS

But medical marijuana isn't the same as traditional prescription medication, which isn't designed to be smoked. Those who smoke pot for medicinal purposes need to do so in the privacy of their homes, not out in public, where it can interfere with the clean air the rest of us enjoy.

A ban will help law enforcement officers, who currently have no authority to stop licensed medical-marijuana users from smoking the drug in public. Belgrade is on the right track with a proposal to restrict public use of marijuana, and we hope the ordinance will sail through to approval without too much rigamarole. It's the right thing to do.

LET YOUR VOICE BE HEARD!

Click Here To Email The Entire Montana Legislation

HOTTEST NEWS!

Medical Marijuana Debate
Prop 19: Indifference to Public Health
Proposed Pot Farm Angers Colo. Residents
The Pentagon shooter's passion: Marijuana
Just an example of how widespread the legalization advocates' circulation reaches!

HELPFUL LINKS

Email Billings City Council

State pharmacists put kibosh on cannabis

JENNIFER McKEE Gazette State Bureau | Posted: Thursday, June 10, 2010 12:58 pm

HELENA — Montana's professional pharmacists say they don't want to get into the medical marijuana business, scuttling the suggestion that lawmakers could firm up Montana's controversial pot scene by making pharmacists dispense the drug.

The Montana Pharmacy Association adopted a resolution at its June 5 meeting stating that professional pharmacists will not support dispensing cannabis until medical research proves the drug is effective and adequate dosing guidelines are established.

The resolution further stated there is currently no accepted medical use for marijuana, according to the U.S. Food and Drug Administration, and that marijuana is still considered an illegal drug by the federal government.

"As such, it is still against federal law for Montana pharmacies to dispense or even have marijuana in their stores," said Tony King, a Missoula pharmacist and newly elected chairman of the Montana Pharmacy Association.

The association is the trade group and political action committee representing pharmacies, pharmacists and some pharmacy technicians.

Pharmacists are allowed to dispense only those drugs approved by the FDA, King said. FDA drug approval is a long process in which drug-makers must show scientific proof that their drug works to treat certain conditions. The same process establishes patient dosing recommendations.

Marijuana has not been through the FDA approval process, King said, and is considered illegal in all instances by federal law.

Pharmacists run afoul of federal law when they dispense any nonapproved drug, he said, to say nothing of selling outright illegal ones.

"We'd come under the scrutiny of the FDA and the (Drug Enforcement Agency) at that point," he said.

King said the untested nature of using pot for medicine raises other concerns.

"For lack of a better word, it's a crapshoot," he said.

Some 62 percent of voters in 2005 approved legalizing possession and use of small amounts of marijuana for medical purposes. Medical marijuana is dispensed by "caregivers" licensed by the state to Montanans with a doctor's recommendation.

Use of medical marijuana in Montana exploded after the Obama administration announced last October it would not enforce federal drug laws on people using medical marijuana in accordance with the laws in their states.

Fourteen states, including Montana, have legalized medical marijuana.

More than 16,000 Montanans have so-called "green cards" allowing them to use medical marijuana. More than 2,500 people obtained their cards in May alone, according to the state Department of Public Health and Human Services, which administers Montana's medical marijuana program.

Montana's law has come under fire recently as pot businesses began sprouting up more visibly and violence related to medical marijuana erupted, most notably last month when two cannabis storefronts in Billings were firebombed.

Last month, state Sen. Dave Lewis, R-Helena, proposed drafting a law for the 2011 Legislature to put pharmacists in charge of selling the drug, among other things.

Lewis' pharmacy plan seemed to draw support in some circles, as it has been repeated by other lawmakers and

Montana Legislature
National Institute on Drug Abuse
US Congress
US Senate

candidates as a possible solution.

But Lewis said Thursday he's already abandoned the druggist-as-dope-seller idea.

"I talked to my own druggist," he said. "And he said, 'We just can't do it.'"

Lewis now has a new plan, which he is still working on in anticipation of next January's legislative session. The outline looks like this:

- The state would own Montana's medical marijuana and would contract out growing to one or more growers. In order to sell marijuana, caregivers would need a license from the state through a system modeled on Montana's liquor license system. Caregivers would only get as much marijuana as their clients require.
- The number of caregiver licenses would be limited and based on population and population growth, similar to Montana's liquor licensing program.
- However, caregivers would not have a property right in their medical marijuana license, meaning they couldn't buy or sell them or borrow against them, as is the case with liquor licenses.

"Otherwise, you'd end up with the same thing we've got with liquor," Lewis said, a system which he admits "has always driven me crazy."

- With the state controlling growing and selling, Lewis said, Montana could "plug the leaks" of medical marijuana and keep the current system from being abused.

The New York Times

January 19, 2010

Researchers Find Study of Medical Marijuana Discouraged

By GARDINER HARRIS

Despite the Obama administration's tacit support of more liberal state medical marijuana laws, the federal government still discourages research into the medicinal uses of smoked marijuana. That may be one reason that — even though some patients swear by it — there is no good scientific evidence that legalizing marijuana's use provides any benefits over current therapies.

Lyle E. Craker, a professor of plant sciences at the University of Massachusetts, has been trying to get permission from federal authorities for nearly nine years to grow a supply of the plant that he could study and provide to researchers for clinical trials.

But the Drug Enforcement Administration — more concerned about abuse than potential benefits — has refused, even after the agency's own administrative law judge ruled in 2007 that Dr. Craker's application should be approved, and even after Attorney General Eric H. Holder Jr. in March ended the Bush administration's policy of raiding dispensers of medical marijuana that comply with state laws.

"All I want to be able to do is grow it so that it can be tested," Dr. Craker said in comments echoed by other researchers.

Marijuana is the only major drug for which the federal government controls the only legal research supply and for which the government requires a special scientific review.

"The more it becomes clear to people that the federal government is blocking these studies, the more people are willing to defect by using politics instead of science to legalize medicinal uses at the state level," said Rick Doblin, executive director of a nonprofit group dedicated to researching psychedelics for medical uses.

On Monday, his last full day in office, Gov. Jon S. Corzine of New Jersey signed a measure passed by the Legislature last week that made the state the 14th in the nation to legalize the use of marijuana to help with chronic illnesses.

The measure was pushed by a loose coalition of patients suffering from chronic illnesses like Lou Gehrig's disease and multiple sclerosis who said marijuana eased their symptoms.

Studies have shown convincingly that marijuana can relieve nausea and improve appetite among cancer patients undergoing chemotherapy. Studies also prove that marijuana can alleviate the aching and numbness that patients

with H.I.V. and AIDS suffer.

There are strong hints that marijuana may ameliorate some of the neurological problems associated with such degenerative diseases as multiple sclerosis, said Dr. Igor Grant, director of the Center for Medicinal Cannabis Research at the University of California, San Diego.

But there is no good evidence that legalizing the smoking of marijuana is needed to provide these effects. The Food and Drug Administration in 1985 approved Marinol, a prescription pill of marijuana's active ingredient, T.H.C. Although a few small-scale studies done decades ago suggest that smoked marijuana may prove effective when Marinol does not, no conclusive research has confirmed this finding.

And Marinol is no panacea. There are at least three medicines that in most patients provide better relief from nausea and vomiting than Marinol, studies show.

Buddy Coolen, 31, of Warwick, R.I., said he tried or continued to use some of those medicines. "Smoking for me is as good as any medicine I have," he said.

Eight years ago, Mr. Coolen contracted gastroparesis and cyclic vomiting syndrome. He lost 50 pounds and, despite being 5 foot 11, weighed 120 pounds.

His doctors gave him myriad anti-emetics, many of which he still takes. They also prescribed Marinol, but it did not work for him, Mr. Coolen said.

"My stepdad is old school and was really against marijuana, but then he saw what it did for me and totally changed his way of thinking," Mr. Coolen said.

Some doctors and law enforcement officials say such anecdotes should not drive public policy. Dr. Eric Braverman, medical director of a multispecialty clinic in Manhattan, said legalizing marijuana was unnecessary and dangerous since Marinol provided the medicinal effects of the plant. "Our society will deteriorate," he said.

Patients who call Dr. Braverman's clinic are, when put on hold, told that the clinic may prescribe supplements and other alternative treatments that have even less scientific justification than marijuana. Dr. Braverman said such alternatives rendered marijuana unnecessary, but his embrace of alternatives is a reminder that medicine has long been driven by more than science.

About 20 percent of drug prescriptions are written for uses that are not approved by federal drug regulators; about half of the nation's adults regularly take supplements; herbal and homeopathic remedies are popular.

The nation's growing embrace of medical marijuana has stemmed from these alternative traditions.

The University of Mississippi has the nation's only federally approved marijuana plantation. If they wish to investigate marijuana, researchers must apply to the National Institute on Drug Abuse to use the Mississippi marijuana and must get approvals from a special Public Health Service panel, the Drug Enforcement

Administration and the Food and Drug Administration.

But federal officials have repeatedly failed to act on marijuana research requests in a timely manner or have denied them, according to a 2007 ruling by an administrative law judge at the Drug Enforcement Administration. While refusing to approve a second marijuana producer, the government allowed the University of Mississippi to supply Mallinckrodt, a drug maker, with enough marijuana to eventually produce a generic version of Marinol.

"As the National Institute on Drug Abuse, our focus is primarily on the negative consequences of marijuana use," said Shirley Simson, a spokeswoman for the drug abuse institute, known as NIDA. "We generally do not fund research focused on the potential beneficial medical effects of marijuana."

The Drug Enforcement Administration said it was just following NIDA's lead. "D.E.A. has never denied a research registration for marijuana and/or THC if NIDA approved the protocols for that individual entity," a supervisory special agent, Gary Boggs, said by e-mail.

Researchers investigating LSD, Ecstasy and other illegal drugs can use any of a number of suppliers licensed by the Drug Enforcement Administration, Dr. Doblin said. And if a researcher wants to use a variety of marijuana that the University of Mississippi does not grow — and there are many with differing medicinal properties — they are out of luck, Dr. Doblin said.

Law enforcement tends to emphasize the abuse potential of medicines without regard to their positive effects. Bureaucratic battles between the D.E.A. and the F.D.A. over the availability of narcotics — highly effective but addictive medicines — have gone on for decades.

So medical marijuana may never have good science underlying its use. But for patients in desperate need, the ethics of providing access to the drug are clear, said Dr. Richard Payne, a professor of medicine and divinity and director of the Institute for Care on the End of Life at Duke Divinity School.

"It's not a great drug," he said, "but what's the harm?"

1/19/2011

OUR OPINION

Medical pot issue demands attention

Medical marijuana advocates are doing themselves no favors when they defy the state's medical board's ban on prescribing the use of the drug via teleconferenced meetings between doctors and patients.

Such actions are testing the patience of Montana's voters, who had not anticipated such widespread use of marijuana when they approved its use for medical purposes several years ago.

The Montana Caregivers Network, which is based in Missoula, has been using Skype, an Internet video conferencing service, to arrange online meetings between patients and doctors. The doctors then prescribe the marijuana which then enables to the patient to buy the drug legally.

In November, the state Board of Medical Examiners said the so-called Tele-Clinics do not meet state standards of care. This followed a previous board ruling that barred physicians from mass screenings of patients.

Montana Caregivers complied with the first ban but is defying the ban on Tele-Clinics.

The group maintains that the ban would hurt patients in rural areas, but that's a lukewarm argument at best.

One only needs to look at the numbers to see that medical marijuana advocates have far exceeded the intent of the voter referendum that OK'd the use of the drug. According to the Department of Public Health and Human Services, there were more than 27,000 registered medical marijuana users in the state as of December. That's a nearly four-fold increase from a year earlier. It means that 1 in 35 Montanans are now medical marijuana users. And it's nearly double that when only adults are considered.

Montanans did not contemplate a wholesale legalization of marijuana when they voted to allow its use in those circumstances where other pharmaceuticals were less effective. And yet some marijuana advocates seem determined to achieve just that in increments by pushing the law and state regulations to the breaking point.

If they wish to avoid a backlash against this strategy, they would be wise to back down and heed the medical board's order.

And state lawmakers, for their part, need to stop dragging their feet and confront the issue, with some clear-cut regulations regarding the use and sale of medical marijuana.

Anything less will only invite further abuse.

BOZEMAN DAILY
CHRONICLE

Wednesday, January 19, 2011

Debate information & DVD

Welcome to the TheStutmanGroup.com

I am a former Special Agent of 25 years with the U. S. Drug Enforcement Administration. My last six years with the DEA I headed the New York Office, DEA's largest. In all of my experience I have learned three absolute facts, which many Americans fail to understand. First, law enforcement will never make drugs completely unavailable in the U. S. Second, most adults know almost nothing about the world of kids and drugs (how many of us know what Special K and Roofies are?). And third, drugs are devastating our communities, homes and workplaces, and we fail to deal with this in a way that will make any substantial change.

On the horror of 9/11/01, over 3000 people died due to terrorist attacks and we have elaborate and hopeful plans of preventing such an attack again. Yet almost 2000 Americans die every month because of the effects of illicit drug use, and most families have no plan in place as to how to deal with the problem. Instead, they use "Not My Kid" as a defense. Most school systems are doing less then they were in 1985 because they will tell you they don't have the time or money to deal with this "parenting" problem.

Most businesses, while they think they are dealing with the problem of "substance abuse in the workplace," spend money on programs that rarely make a difference (pre-employment testing), and leave themselves wide open to major suits due to the use of alcohol at company functions, entertaining clients, etc., without doing even the simplest things to protect their assets.

When I meet with parent groups, workplace related groups or schoolchildren, I try to present in a practical, no-nonsense manner, the issues they each face; as well as, share thoughts on how to cope and potentially resolve this devastating and debilitating problem in the U. S. Please explore further and see the programs we offer, in addition to what other folks like you have said about our approach.

Robert Stutman

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DrugSense Drug War Clock

Current Time	12:53:22 P.M.
Federal Spent	$806,591,545
State/Local Spent	$1,374,788,508
Total Spent	$2,181,380,053
All Drug Arrests	89,046
Cannabis Arrests	45,948
Imprisoned	579

QUOTES ABOUT ROBERT M. STUTMAN

"Stutman is the foremost expert on the drug issue, we are lucky to have him here in New York. If Washington doesn't take him they are foolish, but it will be New York's gain". ***Governor Mario Cuomo***

"Your drug prevention program in Massachusetts will remain a legacy to you in the awareness you personally brought to me and the citizens of the Commonwealth. Governor Michael Dukakis

"Bob Stutman is the foremost leader on the drug issue; a true American hero". Senator Al D'Amato

"If you are wondering what has happened to our heroes, this man is one." Dan Rather to 1,500 CBS Affiliates

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Medical marijuana card OK'd after 8 minutes, 6 questions

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Medical marijuana card OK'd after 8 minutes, 6 questions

DIANE COCHRAN Of The Gazette Staff The Billings Gazette | Posted: Saturday, August 21, 2010 11:26 pm | (196) Comments

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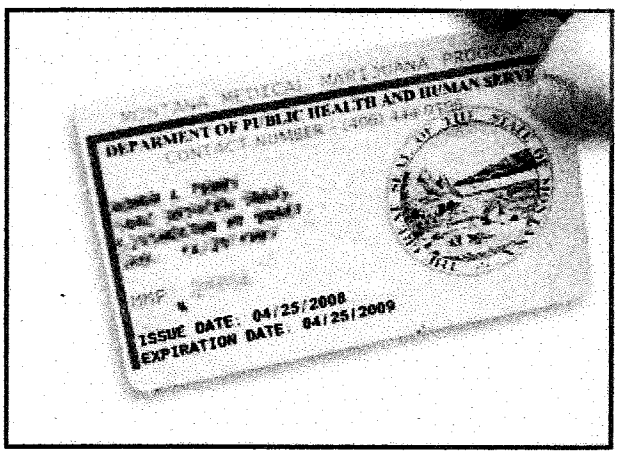

Gazette File Photo The Montana Medical Marijuana Act authorizes the use of marijuana to treat

specific conditions.

A standard of care

The Montana Board of Medical Examiners declared in May that physicians who recommend marijuana to patients must follow the same "generally accepted standards of care" that are required of all doctors.

Anyone who has information about a doctor who is not following the guidelines may make a report to the board by calling 406-841-2333 or clicking here.

Medical marijuana criteria

The Montana Medical Marijuana Act authorizes the use of marijuana to treat specific conditions. They are:

- Cancer.
- Glaucoma.
- HIV or AIDS.
- Cachexia or wasting syndrome.
- Severe or chronic pain.
- Severe nausea.
- Seizures, including but not limited to seizures caused by epilepsy.
- Severe or persistent muscle spasms, including but not limited to spasms caused by multiple sclerosis or Crohn's disease.

Meeting the standards

The medical board defined "generally accepted standards" of care as:

- Taking a medical history.
- Performing a relevant physical examination.
- Reviewing prior treatment and treatment response.
- Obtaining and reviewing relevant diagnostic test results.
- Discussing advantages, disadvantages, alternatives, potential adverse effects and expected response to the treatment recommended and ensuring that the patient understands them.
- bull; Monitoring the response to treatment and possible adverse effects.
- Creating and maintaining patient records.

• Notifying the patient's primary-care physician when appropriate.

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It took me eight minutes to get a doctor's recommendation for medical marijuana.

Jason Christ thinks I waited too long.

The less time physicians spend with medicinal-pot seekers the better, according to Christ, executive director of Montana Caregivers Network.

The controversial group has helped thousands of Montanans sign up for medical marijuana cards at traveling clinics and via Internet consultations.

My eight-minute conversation with a doctor over Skype, an Internet video-communication program, was unnecessarily long, Christ said.

"It sounds like it was pretty thorough," he said after I described it to him. "It's not really necessary to have a doctor who does an in-depth evaluation, like an hour-long evaluation."

That's not how the voter-approved Montana Medical Marijuana Act reads or what the Montana Board of Medical Examiners requires. But Christ is confident that his organization is on the right side of history.

"I don't think we should be making it harder for people" to get medical marijuana, he said. "We should be making it easier."

It was easy for me.

I did it as The Billings Gazette's health reporter after MCN invited me to witness and report on interactions between its doctors and patients and then refused to let me into the clinic when I arrived at the agreed-upon time. With no other way to assess the validity of those doctor-patient interactions, I decided to sign myself up for a consultation.

I called MCN in July to schedule a web appointment with a doctor. Two days later, I logged on to Skype from a laptop computer equipped with a web camera and waited for the doctor to "call" me.

Once we were connected, he asked me why I needed medical marijuana.

I told him the truth: I have back pain. It started 15 years ago after I fell onto a concrete floor, and it has gotten progressively worse.

Shortly after my fall, I saw an orthopedic doctor, who recommended stretches, and I occasionally go to a chiropractor.

The doctor I did the recent web interview with has been licensed to practice medicine in Montana since 2001 and was at one time a surgeon in Great Falls.

The doctor asked six questions: Is the pain localized to your back or does it radiate into your legs? Do you have any other medical conditions? Do you take any medications? Do you drink alcohol? Do you smoke tobacco? Have you ever smoked marijuana before?

He did not ask me for my medical records or proof that what I told him was true. He did not ask me what kind of pain it was or to rate it on a pain scale.

He did not ask me if I had any questions about marijuana as a medicine.

I did have questions, but he did not seem to have time to answer them. A caregiver could talk to me about the form of marijuana that I should use and what to expect from the drug, he said.

The doctor did tell me not to smoke marijuana — smoking is, after all, unhealthy — and to select a "stable" caregiver.

What does that mean? I asked.

"They would have a storefront and different products," he said. "A lot of people have been growing marijuana illegally for years and have a lot of knowledge about it medically. You want one of those people."

I paid $150 to MCN for the Internet consultation. When I mailed the doctor's signature to the state Department of Health and Human Services, which issues medical marijuana cards, I parted with another $25.

Now I am one of about 23,500 Montanans who have been authorized to use medical marijuana. Like me, almost 70 percent of cardholders were approved to treat severe or chronic pain.

The Montana Medical Marijuana Act does not define severe or chronic pain, one of eight medical conditions that the law says may be treated with pot. But the act does outline what must take place before a doctor can certify a patient to use marijuana.

A physician must use his or her professional opinion "after having completed a full assessment of the qualifying patient's medical history and current medical condition made in the course of a bona fide physician-patient relationship."

In a meeting earlier this year, the Montana Board of Medical Examiners voted to ask lawmakers to replace "bona fide physician-patient relationship" with a phrase about "generally accepted standards of care." Doctors who recommend medical marijuana should be held to the same standards as other practicing physicians, the board said.

In May, the medical board fined a doctor who failed to meet the expected standards of care by spending an average of six minutes with patients before signing marijuana recommendation forms.

Members of the board declined to comment on my experience. But Pat Bollinger, a registered dietician on the board, said the board has been clear about what is expected from doctors.

"It's pretty clear from our position paper what standard care is, and it's pretty evident when the standard of care is being met," Bollinger said.

At their May meeting, board members defined "generally accepted standards of care" with a list of eight bullet points.

My online visit failed to meet at least three of the requirements: taking a medical history, discussing advantages and disadvantages of a treatment and monitoring a patient's response to a treatment.

"This is exactly the kind of medical encounter we hope ends," said Rep. Diane Sands, D-Missoula, a member of a legislative subcommittee looking at ways to revise the state's medical marijuana law.

"It is total medical incompetence."

The subcommittee will report to the Children, Families, Health and Human Services interim committee, which will draft a bill for the 2011 Legislature based on the subcommittee's recommendations.

If legislators approve a bill that tightens medical marijuana regulations, Montanans who got cards under questionable circumstances might not be able to renew them, Sands said.

I'm not the only one who has sought a medical marijuana card without planning to use it.

Law enforcement agencies across the state have sent undercover officers complaining of a variety of medical conditions to traveling clinics. They almost always get approved, and it often takes even less time than it did for me.

"The ones I've gone to, it's been a minute," said Mark Long, narcotics bureau chief for the state Division of Criminal Investigation. "The guys who try to ask questions or go into detail get hurried up because there's a line behind them."

"Yours is one anecdote of what we hear all the time," Long told me. "I think it's a joke."

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GREAT FALLS, MONTANA

May 30, 2010

Educators see rise in student drug use, blame medical marijuana

By AMIE THOMPSON
Tribune Staff Writer

In April, an aide brought a student to C.M. Russell High School Principal Dick Kloppel's office.
It was 8:15 a.m. and the student smelled of marijuana. The aide suspected that the student was high.
The girl told Kloppel she drove her boyfriend to school and that he was smoking his medical marijuana in the car. He is a Montana "green-card" holder, meaning he can legally possess and smoke marijuana to alleviate pain.
Kloppel then inspected the student's car.
"You could smell the marijuana from outside the car. It was almost blue in the car," he said.
Through the smoke, Kloppel spotted a baby seat in the back. The principal believed that the couple's 4-month-old baby likely had been riding in the car.
"Looking at her (the student), there was no way she wasn't high. But she said she wasn't using it, and there was nothing in her possession," Kloppel said.
With no admission of guilt, there was nothing the administration could do but send her back to class.
This instance is not isolated. More Great Falls teenagers are smoking marijuana than counselors and administrators have ever seen before. Kloppel and Fred Anderson, principal at Great Falls High School, say that is because of the growing use of medical marijuana in the community.
"I strongly believe it is directly attributable to the increased availability of the drug through caregivers and cardholders," Kloppel said.
Counselors say students have taken a more casual approach to marijuana in the past year. They keep hearing students tell them it is medicinal and helps calm them down and relieve stress.
With no way for officials to test students for marijuana besides taking them to the hospital for a blood test, students — with or without a green card — go unpunished for using the drug.
"Right now, we don't have a policy," Kloppel said in a recent interview.
"This has become an epidemic," CMR counselor Earlene Ostberg said. "Some of these kids were going to go to college and now are just going to get a job."
In a February 2009 survey among the city's high-schoolers, 48 percent reported that they have used marijuana, and 5 percent reported using it 10 to 19 times in the last 30 days. The number of students who said they experimented with marijuana was up nearly 10 percent from the 2007 Youth Risk Behavior Survey. The latest national statistics conducted by the CDC show 38.1 percent of teens had used marijuana at least once in their lifetime, according to the 2007 survey.

"But our data doesn't reflect how much it's increased since they started opening up the marijuana stores," said Mikie Messman, Chemical Awareness/Responsive Education program coordinator for the school district.
Kloppel and Anderson say there is no question that the use is higher than last year.
"It's worse than the early '70s," Kloppel said.
What is different is that marijuana use this year seems to be across all groups and cliques at the high schools.
"It really does not have boundaries — even athletes," Anderson said. "There used to be a group you could ID, but now it doesn't have boundaries."
Authorities used to be able to pinpoint the distribution points, but "now if you can get it anywhere, where do you go?" There are no avenues of control, he added.
"There are a lot of kids that don't (use marijuana), but there are a lot more kids that do that didn't use to," Kloppel said.
Tom Daubert, founder and director of Patients and Families United, a Montana cannabis care-giving cooperative, said that in other states with medical marijuana laws, recreational use among teens has actually gone down.
"It's no fun anymore. Kids see it as grandma's cancer medicine," Daubert said.
In Montana, Daubert said the traveling medical marijuana clinics organized by the Montana Caregivers Network have created a different perception in the last seven months.
In October, the Obama administration told federal prosecutors not to waste time arresting marijuana patients and suppliers who are operating legally under state law. The traveling clinics followed. They give people access to doctors who see marijuana as a safe alternative to some traditional prescription medications. The Montana Caregivers Network has signed up a large portion of the nearly 15,000 medical marijuana cardholders in Montana.
Efforts to either craft legislation solutions or a ballot initiative to undo the 2004 decision legalizing medical marijuana were discussed last week in Helena by people on both sides of the issue.
Jason Christ, executive director of the Montana Caregivers Network, said the problem of illegal marijuana use among teenagers has been there all along.
"Principals, they don't know," Christ said. "It's not that these clinics are causing the problem."
He said that kids always have experimented with drugs, and school officials should be more concerned with methamphetamine, abuse of prescription medications and alcohol.
"No one has ever died from this plant — ever," he said.
Christ wanted to be very clear, however, that medical marijuana should be used only as a medicine.
"Jason Christ does not want to legalize marijuana," he said.
Dr. John Stowers, an emergency room doctor in Great Falls, does not suggest medical marijuana patients ever smoke marijuana. There are other, more effective ways of ingesting the medicine, he said.
"There are risks. Marijuana is not a benign drug. Smoking anything isn't healthy. It's kind of the best of a bad situation is the way I see it," he said.
Stowers sees patients wanting medical marijuana about five times a month in a separate office downtown. Patients are screened by phone and by a nurse before he sees them, and even then, he said he turns away 30 to 40 percent of the people he sees.
But there are many risks that have to be weighed when it comes to young people having access to marijuana, he said.
"Clearly, the studies have shown that some people do have delay in mental development," Stowers said. "Would I want my own child to smoke marijuana? Absolutely not."
Stowers said he has seen three people in their teens or 20s.
"I wouldn't hesitate seeing a 12-year-old with his parents and talk to his doctor, if they had a severe debilitating lifetime illness," he said.
Stowers also said he is bothered by what the Great Falls principals have seen in recent months.
"It was never intended to be in the hands of young, healthy kids," he said.
The students tell Messman that smoking marijuana relieves their stress. They are not learning to cope with their stress — they are covering it up, she said.
"The kids are using it as medication so they don't have to deal with adolescence," Messman said.
"For me, this is the scariest thing I've ever seen," Ostberg added. "Most of the ones that are failing are doing pot.
"When I ask, 'why,' a lot of kids are real defensive. They say, 'Mrs. Ostberg, it's medicinal. I could get a green card,'" she said.
CMR senior Cameron Castaneda knows firsthand about using the drug. He used to turn to marijuana any time a struggle came his way. If he didn't get a good enough grade on a test, he'd get high. If he got in an argument with his girlfriend, he'd get high.
"I couldn't cope with things," Castaneda said. "If you do it too much, you pretty much — you lose your life."
Castaneda said he lost his high school years because of marijuana.
"It's like someone trying to swim with a 10-pound brick tied to your leg," he said.
Castaneda dropped out of school last spring with a month and a half left in the school year. Then he spent the summer in the juvenile detention center after he stole a television out of an acquaintance's house to get money to buy drugs.
Out on probation and back in school last fall, Castaneda lasted only three weeks before he broke his probation and began to run from the law.
His parents had sent him to live with his aunt and uncle in Great Falls to get him away from the crowd he was hanging with in Las Vegas. CMR school counselors and teachers saw Castaneda's potential in those first nine months he lived here and stayed clean. But after visiting his parents at Christmastime his junior year, he went right back to that lifestyle. When he returned to Great Falls for school, he quickly hooked into the party crowd here.

Castaneda's aunt and uncle fought hard for him, but eventually kicked him out of the house. After breaking probation last fall, he had no place to stay, hardly ate and had to borrow clothes from his friends.

In November, law enforcement caught up with him.

"At 17 years old, I spent two months on the hill in jail. I missed Thanksgiving, Christmas and my 18th birthday," he said.

But one day in January, Castaneda was given a second chance. He entered the drug treatment court program, in which he has to check in every day before 10 a.m. Three times a week he has a drug test, and every Tuesday he speaks to District Judge Thomas McKittrick about how his week went. He also has to attend at least three support group meetings a week.

"I've been sober 6 1/2 months — and that's completely sober," Castaneda said. "Everything is so much better now that I have engaged myself as a member of society."

Castaneda will graduate today from CMR, even though he lost two full semesters of credit. He was a full semester ahead before he dropped out the first time; this semester he took eight classes to meet graduation requirements.

However, not everything can be undone.

Since Castaneda was a small boy, he has dreamed of becoming a special agent for the FBI.

"Now that I have a felony, there is no way I can do that," he said.

Castaneda will start at Montana State University-Great Falls College of Technology this fall where he intends to major in English. He'd like to become a novelist.

His fight to stay clean is a daily decision, he said. He has learned other ways to cope when he argues with his girlfriend or something doesn't go his way.

"Now when something like this happens, I'm a lot more willing to work on it," he said. "Since I know I honestly do love the girl, I know I want to work on it."

Montana's medical marijuana law states that it is not appropriate for the workplace, but there is no mention of school.

Kloppel worries about the implications: What if the student with a green card smokes marijuana at lunch and shop class is next? What if the student will be using a saw?

What about driver's education, he wonders.

For those growing numbers of students smoking illegally, the same concerns hold true, since it is hard to prove a student is under the influence of the drug.

Even when the administration can add consequences for those students smoking marijuana, it is of little concern to the students involved.

"All the detention that worked with people that are pretty rational tends not to work with marijuana," Anderson said.

It's a vicious cycle. The kids start smoking and lose interest in being in school. If they are not in school, counselors and teachers cannot establish relationships with them.

"We know that we have to keep them in school to keep them engaged," Messman said.

"The heavy users and the regular users do not perform in school," Kloppel said. "School becomes less and less important to them."

One student who used to get B's and C's in school now is getting low D's and F's. The student told Kloppel he is having trouble remembering what he read after he reads it.

"He's still planning to go to college, but he has to get through high school first," Kloppel said.

Compounding the problem is that parents are in denial, according to school officials.

"If you have a violation that doesn't involve alcohol, there is a much higher rate of denial," Anderson said. "Parents do not want to believe it."

He said one situation stands out in his mind. A family of a student with a serious marijuana problem denied those problems and refused to get their child's blood tested. At a later date, the student was found on the third floor of the school passed out during an athletic event. He was rushed to the emergency room, where he was in serious condition.

"That is what it took," Anderson said. "That was an eye-opener."

Ostberg said that many parents are not aware of what to look for if their child is smoking marijuana. Many parents also will not allow a blood test because they don't want to cause problems with their relationship with the teen.

A CMR school newspaper reporter with the Stampede did a story this spring on medical marijuana. She found an underclassman who was willing to talk about how medical marijuana was helping her ailments and how she got her green card.

The story turned out to be a total fabrication. The student didn't have a green card or the medical condition she said she did.

Kloppel said the girl lied "to be cool."

It's the cool thing to do in high school now — the story might get her more friends, Kloppel said.

Alan Stelling, student body president at Great Falls High, said he hasn't noticed marijuana use being more of a problem.

"Just around the school, I can't really tell, but I can see how the attitudes are changing," he said.

His freshman year, students who were using marijuana were outcasts, but now it's much more accepted, he said.

Ostberg is hearing that, too.

"I asked a group of students how difficult it was to get pot and how many cardholders they knew of. They then added that when the cardholders get their pot, they would invite people over and party for several days," she said.

"The use of marijuana in Great Falls is crazy," CMR senior Jessica Kohlhepp said.

She smells it before school, at lunch and even in the classrooms.

"I see it all the time. I smell it all the time," she said.

Kohlhepp stopped smoking marijuana her sophomore year after she ended up in the emergency room. She had smoked a joint

that was laced with either meth or angel dust. While it didn't cost Kohlhepp her life, the incident did cost her the trust and respect of her family and friends.

"I'm a well-put-together person, so my parents didn't even suspect," she said.

Now she has her life back on track. She graduates today and will move to Billings to start cosmetology school next month.

"If I could talk to a kid before they tried it, I would say don't try it. It will mess up your life. You can't trust your dealers — even if they are your friends," she said.

Messman, who has served as a school representative for the Juvenile Drug Court program since its inception in January 2006, said the statistics show kids are choosing marijuana over alcohol and other drugs.

"From that (starting) date until May 1, 2010, we've had 53 kids participate in Juvenile Drug Court. Of those 53, 51 named marijuana as their drug of choice," Messman said. "These are kids who have committed crimes and drugs or alcohol have been a major contributor to their criminal behavior."

Kloppel and Anderson said kids believe that using marijuana while driving will not result in a DUI, like it would if they were drinking alcohol.

One of the scariest things Messman is noticing is that kids are trying marijuana even before they are in high school.

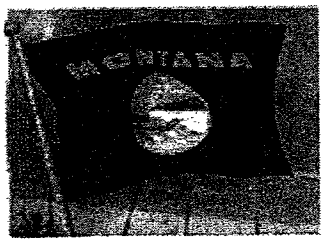
"These kids are starting very, very young — "12, 13 years old," Messman said.

Make that 4 months old, Kloppel pointed out, if you consider the baby in the back of the student's car he searched.

Rep. David Howard
House District 60
"If you want total security, go to prison. There you're fed, clothed, given medical care, and so on. The only thing lacking...is freedom."
President Dwight D. Eisenhower
"America will never be destroyed from the outside. If we falter and lose our freedoms, it will be because we destroyed ourselves."
Abraham Lincoln
"The heart of the wise inclines to the right, but the heart of the fool to the left. Even as he walks along the road, the fool lacks sense and shows everyone how stupid he is." Ecclesiastes 10:2-3

Use Abuse Addiction

- how to
- articles
- drug education
- home



State Summary: Substance Abuse

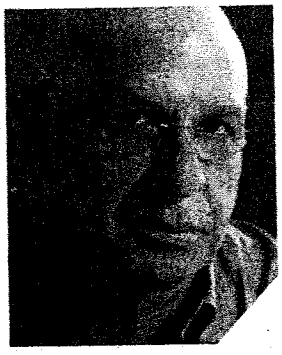
select state

- Treatment Facilities
- Local Resources
- State Drug Offices
- Substance Abuse Statistics
- Legal & Policy Issues
- State Summary

›› Montana: Drug Climate

The number one drug problem encountered in Montana is meth. Cocaine and marijuana also are common in Montana with ecstasy use escalating. The most abused drug in the state of Montana continues to be marijuana. Heroin is not a widely abused drug in the state.

- Cocaine
  In 2001, the Montana Youth Risk Survey results indicated that 9% of high school students had experimented with cocaine at one point or another. The two main cities with high levels of cocaine use are Billings and Great Falls. Crack cocaine use is considered to be a sever problem on Native American reservations.
- Heroin
  The availability of heroin is limited in the state of Montana. Though, black tar heroin use seems to be increasing in the western part of the state, predominantly in Missoula.
- Meth
  Throughout Montana meth is becoming increasingly available. The law enforcement officers across Montana name meth to be the most significant drug problem.
- Club Drugs
  Ecstasy use is escalating in the larger cities of Montana such as Billings and Great Falls, as well as at the college communities of Bozeman and Missoula. Other club drugs (ghb and ketamine) have not surfaced yet and are not considered a serious concern in the state of Montana.
- Marijuana
  Marijuana is easily accessible throughout Montana and is the most commonly abused drug in the state. The majority of marijuana found in Montana originates from Mexico.



Robert Stutman

FOR THOSE OF US WHO DO NOT THINK IT COULD BE OUR KIDS

The following E-mail was received by Bob Stutman on October 1, 2006 from a CEO he knows. It is especially for those folks who do not think it could ever be "their kid".

Jack graduated this year from Penn with an MD from U of Penn and an MBA from Wharton. He received his first choice to do his residency at Mt. Sinai Hospital

Hi Bob,

This is Bill Olt from TEC I, you spoke to our group last year but I was unable to attend, instead I saw you at the Country Springs Hotel in Waukesha, WI while you were doing Special Interest TEC/EA meeting. At that presentation I came up to you at a break and told you about my one son who was a senior in college who had just gone through withdrawal from Oxy-Contin. I also mentioned about my other son who studying to be doctor at the University of Pennsylvania. Jack had suffered with alcoholism but was also addicted to cocaine. You asked me if I was willing to share these stories with the group and I did.

Joe has been one who has been clean from Oxy-Contin for 16 months and started a successful career working with me in my business. All of his other friends that had been using Oxy-Contin have not been able to kick it and one of Joe's friends entered in-patient two weeks ago. Our other son, Jack, however has not been as fortunate. Jack graduated this year from Penn with an MD from U of Penn and an MBA from Wharton. He received his first choice to do his residency at Mount Sinai Hospital on the upper east side of Manhattan. (I assume you know exactly where I am speaking of.)

Before he started his job, Jack had gotten beat up in Chicago over Memorial Day weekend while being drunk and stoned. He came to our house after the weekend with a black eye and swollen nose, he told me that he needed to go in-patient and I wholeheartedly agreed. Within two days Jack was in-patient at an alcohol and drug treatment facility in Florida. He stayed there 18 days before his residency started on June 19th. My wife, Pat, and I encouraged him to stay 90 days but Jack didn't want to jeopardize being discovered by the hospital and having his career jeopardized. Pat and I told Jack that his life meant more than having a set back in his career and that doctors have addiction problems just like people of every career. None-the-less, Jack went back to New York after 18 days of treatment and got into an outpatient program.

Pat and I had regular conversations with Jack and celebrated when he hit 30 days of sobriety, which was a first. He told me that four other times he had hit 29 days of sobriety and intentionally drank so he could not have to say he hit that milestone. It is such a crazy irrational type of thinking. Anyway, he then got to 60 days and beyond. On the last week of August Jack had a week of vacation from the crazy residency schedule. Pat and I spoke to him three times that week and I spoke to Jack on Friday, August 25th. He was telling me how good he was doing.

FOR THOSE OF US WHO DO NOT THINK IT COULD BE OUR KIDS

The final moments for Jack was him crawling off of a Holiday Inn elevator into the lobby on his hands and knees trying to get help but was having convulsions and could not talk. The maintenance man and hotel manager tried to communicate with Jack but he then collapsed and was dead.

Then at 4:25 AM on August 27th I received a call from Dr. Pulumbo of Thomas Jefferson Hospital in Philadelphia that Jack had died of complete cardiac arrest due to cocaine. She had worked a long time trying to resuscitate him but never was able to get a heart beat.

The final moments for Jack was him crawling off of a Holiday Inn elevator into the lobby on his hands and knees trying to get help but was having convulsions and could not talk. The maintenance man and hotel manager tried to communicate with Jack but he then collapsed and was dead.

When I received Jack's PDA/Phone from the hospital I found out another part of his life. In looking at his chat messages you found out much of what Jack's life was like. Jack had been lying; he did make 30 days of sobriety but was back to drinking and drugging in July. Despite the long hours of being a doctor in residency, Jack was continually at parties and clubs in NY and Philly. His friends were not low life's they were all college graduates and many with Master and PHD degrees. Excessive partying was part of all of their social lives and cocaine was something that was accepted by his peers and Jack got exposed to the drug life at an Ivy League medical school. It only took two years of use to consume him.

I am sharing this with you Bob because I know you are on a crusade against drugs in the workplace and anywhere else. TEC members and everyone else need to know how serious this is and how many adults are using and abusing drugs and alcohol. I hope that you will be able to put our story to use as you tell your story

Truly,

--Bill

Chief Executive Officer

the StutmanGroup

Cell: 561-445-123
robert@thestutmangroup.com
www.TheStutmanGroup.com

THE Nine Necessary Components of Being Involved with Your Children

1. Be there: Get involved in your children's lives and activities.

2. Open the lines of communication and keep them wide open.

3. Set a good example: Actions are more persuasive than words.

4. Set rules and expect your children to follow them.

5. Monitor your children's whereabouts.

6. Maintain family rituals such as eating dinner together.

7. Incorporate religious and spiritual practices into family life.

8. Get Dad engaged – and keep him engaged.

9. Engage the larger family of your children's friends, teachers, classmates, neighbors, and community.

"Being involved with your children on a regular basis is the key to raising your children drug & alcohol free".... Robert Stutman

Joseph Califano, Founder & Chair CASA, Columbia University

Drug Seminar Debrief April 2010

- Montana is #2 in nation in per capita alcohol abuse. Surprisingly, Montana is also #2 in nation in per capita drug abuse.

- What are kids doing (across the nation)?

-- Huffing (Pam, sharpies, etc): cheap compared to marijuana at $50 per 1/8 oz. Normally younger kids.

-- Prescription Drugs (from medicine cabinet): Kids look for the warning label, "Do not drive a vehicle or operate machinery when taking this medication. OxyContin (OCs) = time release pain killer form of oxycodone that kids crush in a Kleenex (hard to detect that someone is using this). Roxies are OCs that are not time release (blues). Fruit salad is a mixture of various prescription drugs. Makes you feel "like you are being held in your mother's arms." OCs sell for about $1 per mg in Bozeman.

-- Marijuana: Delta 9THC is 12 to 15 times stronger than was found in marijuana 15 years ago. Affects short term memory.

-- Ecstasy: Snoopy & peace sign popular in Montana; can be very colorful pills. Causes teeth grinding (pacifier), causes thirsty (drink lots of water), causes impotence (Viagra trail mixing). Makes you feel good about yourself and accept other people (may cause a person to commit a homosexual act). Floods the brain with serotonin. Affects both short term and long term memory. Causes radical nightmare called night terrors.

-- LSD: Put a drop on Aspirin tablet (no coating). Many kids think they are using shrooms (psilocybin mushrooms), but many are really using regular mushrooms that are toasted and laced with LSD (cheaper than psilocybin mushrooms).

-- Ketamine (Special K, Super K, K-holing): Veterinary anesthetic that produces "near death experience" or "out of body experience."

-- Salvia (Purple Sage): Legal in Montana. S2 Spice: Legal in Montana. Probably can get it at Cactus Records

-- Rohypnol (roofies) Date rape drug. Does not cause an instant drunk like older date rape drugs. Difficult to prosecute since it causes amnesia.

-- Back packing

-- Ritalin & Adderall: Many kids who are on prescription sell some or all at $7 to $10 per tablet. Adderall is an amphetamine while Ritalin is a methylphenidate.

-- Cocaine/Methamphetamine = same drug with same internal effects (makes you feel like King Kong while also making you feel paranoid). Most addictive drugs. High rate of death through heart attack/stroke (not OD). Meth has different external effects: meth face (sagging face muscles) and meth mouth (blackening of teeth along gum line).

- Statistics:

-- Private schools ~20% higher substance abuse rates than public schools unless private school is Christian, then ~15% lower than public schools.

-- Team sport athletes have higher substance abuse rates than non-athletes while individual sport athletes have lower substance abuse rates than non-athletes.

-- Three most accurate predictions of future substance abuse by children:

--- Age of first use.
--- Gateway drug = tobacco (16x more likely to become an alcoholic or drug addict).
--- Number of suppers the family does not eat together in a week.

-- Absence of immediate harmful effects causes parents to lose credibility.

-- #1 way to tell if your kid is on drugs is to look @ who you kid hangs out with. #2 indicator is your kid's attitude towards drugs.

-- For people 35 years old and younger, most abusers are multi-drug users.

-- 78% of drug addicts are white.

-- Rural high schools have 100% higher alcoholism rates than urban schools and about the same drug abuse rates.

-- 1st average drug use not counting alcohol is 12 years 3 months. 30 years ago, it was 15.5 to 16 years old.

-- In 16 of 50 states in 2009, prescription drug overdose overcame vehicular accidents as #1 cause of accidental death.

- Other Information:

-- Drug testing in schools probably will not work, but tends to work for parents to drug test their own kids. It gives the kids a good excuse to say, "no" and blame their parents.

-- Addiction as a crime versus addiction as a disease.

-- Read "High Society" and "How to Raise a Drug-Free Kid" by Joseph Califano.

-- Watch the movie, "Traffic" with Michael Douglas.

-- To get kids to talk to you about drugs:

--- Do not preach.
--- They must think that you know more than they do.
--- You cannot talk down to them or think you are better than them.

Tetrahydrocannabinol

From Wikipedia, the free encyclopedia

Tetrahydrocannabinol (pronounced /ˌtɛtrəˌhaɪdrəkəˈnæbɪnɒl/ *tet-rə-HYE-drə-kə-NAB-i-nol*) (**THC**), also known as **delta-9-tetrahydrocannabinol** (Δ^9-THC), **Δ^1-THC** (using an older chemical nomenclature), or **dronabinol**, is the main psychoactive substance found in the cannabis plant.

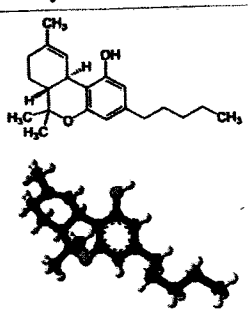
It was first isolated by Yechiel Gaoni and Raphael Mechoulam from the Weizmann Institute of Science in Rehovot, Israel, in 1964.[4][5][6] In pure form, it is a glassy solid when cold, and becomes viscous and sticky if warmed. An aromatic terpenoid, THC has a very low solubility in water, but good solubility in most organic solvents.

Like most pharmacologically-active secondary metabolites of plants, THC in cannabis is assumed to be involved in self-defense, perhaps against herbivores.[7] THC also possesses high UV-B (280-315 nm) absorption properties, which, it has been speculated, could protect the plant from harmful UV radiation exposure.[8][9][10]

Dronabinol is the International Nonproprietary Name (INN) for a pure isomer of THC, (-)-trans-Δ^9-tetrahydrocannabinol, that is, the main isomer in cannabis.[11] It is sold as **Marinol** (a registered trademark of Solvay Pharmaceuticals). Dronabinol is also marketed, sold, and distributed by PAR Pharmaceutical Companies under the terms of a license and distribution agreement with SVC pharma LP, an affiliate of Rhodes Technologies.

Contents

Tetrahydrocannabinol (THC)



Systematic (IUPAC) name

(−)-(6a*R*,10a*R*)-6,6,9-trimethyl-3-pentyl-6a,7,8,10a-tetrahydro-6*H*-benzo[c]chromen-1-ol

Identifiers	
CAS number	1972-08-3
ATC code	A04AD10
PubChem	CID 16078
DrugBank	DB00470
ChemSpider	15266 ✓
UNII	7J8897W37S ✓
ChEMBL	CHEMBL465 ✓
Chemical data	
Formula	$C_{21}H_{30}O_2$
Mol. mass	314.45
SMILES	eMolecules & PubChem
InChI	InChI=1S/C21H30O2/c1-5-6-7-8-15-12-18(22)20-16-11-14(2)9-10-17(16)21(3,4)23-19(20)13-15/h11-13,16-17,22H,5-10H2,1-4H3/t16-,17-/m1/s1 ✓ Key: CYQFCXCEBYINGO-IAGOWNOFSA-N ✓
Synonyms	Dronabinol
Physical data	
Boiling point	157 °C (315 °F) [2]
Solubility in water	0.0028 [1] (23 °C) mg/mL (20 °C)
Spec. rot	-152° (ethanol)
Pharmacokinetic data	
Bioavailability	10-35% (inhalation), 6-20% (oral)[3]
Protein binding	95-99%[3]
Metabolism	mostly hepatic by CYP2C[3]
Half-life	1.6-59 hours,[3] 25-36 hours (orally administered Dronabinol)
Excretion	65-80% (feces), 20-35% (urine) as acid metabolites[3]
Therapeutic considerations	
Pregnancy cat.	C
Legal status	Schedule I and III (US)

✓(what is this?) (verify)

Pharmacology

The pharmacological actions of THC result from its binding to the cannabinoid receptor CB_1, located mainly in the central nervous system, and the CB_2 receptor, mainly present in cells of the immune system. It acts as a partial agonist on both receptors, i.e., it activates them but not to their full extent. The psychoactive effects of THC are mediated by its activation of the CB_1 receptor, which is the most abundant G protein-coupled receptor in the brain.

The presence of these specialized receptors in the brain implied to researchers that endogenous cannabinoids are manufactured by the body, so the search began for a substance normally manufactured in the brain that binds to these receptors, the so-called natural ligand or agonist, leading to the eventual discovery of anandamide, 2-arachidonoyl glyceride (2-AG), and other related compounds known as endocannabinoids. This is similar to the story of the discovery of endogenous opiates (endorphins, enkephalins, and dynorphin), after the realization that morphine and other opiates bind to specific receptors in the brain. In addition, it has been shown that cannabinoids, through an unknown mechanism, activate endogenous opioid pathways involving the μ_1 opioid receptor, precipitating a dopamine release in the nucleus accumbens. The effects of the drug can be suppressed by the CB1 cannabinoid receptor antagonist rimonabant (SR141716A) as well as opioid receptor antagonists (opioid blockers) naloxone and naloxonazine.[12]

The mechanism of endocannabinoid synaptic transmission is thought to occur as follows: First, transmission of the excitatory neurotransmitter glutamate causes an influx of calcium ions into the post-synaptic neuron. Through a mechanism not yet fully understood, the presence of post-synaptic calcium induces the production of endocannabinoids in the post-synaptic neuron. These endocannabinoids (such as anandamide), then, are released into the synaptic cleft, where binding occurs at cannabinoid receptors present on pre-synaptic neurons, where they modulate neurotransmission. Thus, this form of neurotransmission is termed retrograde transmission, as the signal is carried in the opposite direction of orthodox propagation, which previously was thought to be exclusively one way.

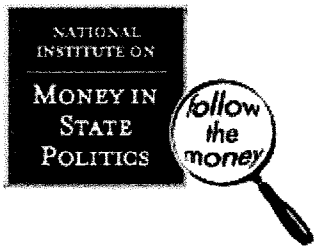
THC has mild to moderate analgesic effects, and cannabis can be used to treat pain. The mechanism for analgesic effects caused directly by THC or other cannabinoid agonists is not fully understood. Other effects include relaxation; euphoria; altered space-time perception; alteration of visual, auditory, and olfactory senses; loss of anxiety [13]; anxiety in neurotic individuals or individuals unfamilar with effects [14]; disorientation; increased creativity [15]; fatigue; and appetite stimulation (colloquially known as "the munchies"). The mechanism for appetite stimulation in subjects is believed to result from activity in the gastro-hypothalamic axis. CB1 activity in the hunger centers in the hypothalamus increases the palatability of food when levels of a hunger hormone ghrelin increase prior to consuming a meal. After chyme is passed into the duodenum, signaling hormones such as cholecystokinin and leptin are released, causing reduction in gastric emptying and transmission of satiety signals to the hypothalamus. Cannabinoid activity is reduced through the satiety signals induced by leptin release. It also has anti-emetic properties, and also may reduce aggression in certain subjects.

THC has an active metabolite, 11-Hydroxy-THC, which may also play a role in the analgesic and recreational effects of cannabis.

The α_7 nicotinic receptor antagonist methyllycaconitine can block self-administration of THC in rats comparable to the effects of varenicline on nicotine administration.[16][17]

studies indicate that THC also has an anticholinesterase action [18][19] which may implicate it as a potential treatment for Alzheimer's and Myasthenia Gravis.

Toxicity



Committee Summary

MEDICAL MARIJUANA POLICY PROJECT OF MONTANA (Multi-Year Profile)

Disclosure Reports Collected:

14/14

See the Grid

Total Raised to Date: **$555,082**

Records: **135** (See all Records)

TABLE 1: Supported or Opposed Ballot Measures

Ballot Measures
Pro
I-148: Allows For The Use Of Medical Marijuana

return to top

Top Contributors

TABLE 2: Top 20 Contributors

Contributor	Total	% of Total	Sector	
MARIJUANA POLICY PROJECT	$554,505	99.90%	Ideology/Single Issue	See Records
PICKENS, JEFFERY S	$100	0.02%	Uncoded	See Records
SATHER, EDWIN	$50	0.01%	Government Agencies/Education/Other	See Records

Contributor	Total	% of Total	Sector	
RUSOFF, ANNE C	$35	0.01%	Uncoded	See Records

TABLE 3: Top 15 Industries

Top Industries	Total
Other/Single Issue Groups	$554,505
Retired	$50

return to top

Contributions by Economic Interest

FIGURE A: Sector Breakdown

TABLE 4: Contributions

	Sector	Records	Total	% of Total
☐	Government Agencies/Education/Other	1	$50	0.01%
☐	Ideology/Single Issue	123	$554,505	99.90%
☐	Uncoded	2	$135	0.02%
☐	Unitemized Contributions	9	$392	0.07%
	Total:	**135**	**$555,082**	**100%**

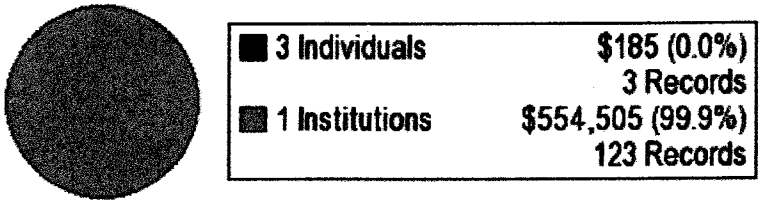
View Selected Contributions | View All Contributions

return to top

Contributions by Contributor Type

FIGURE B: Contributor Type Breakdown

FIGURE C: Individual Vs. Institutional



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Contributions by Geographic Location

FIGURE D: Location Breakdown

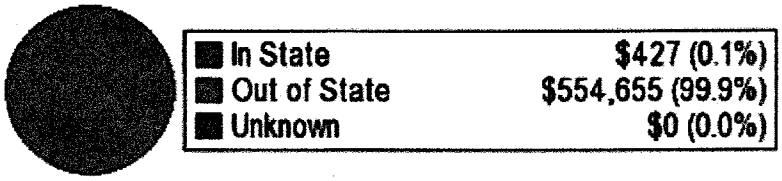


TABLE 5: Top 15 Cities View by : City State Zip

City, State	Total
Washington, DC	$554,505
Stillwater, OK	$100
Keizer, OR	$50
Bozeman, MT	$35

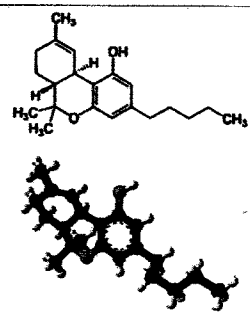
return to top

833 N. Last Chance Gulch -- Helena, MT 59601
Phone: (406) 449-2480 | (406) 457-2091 (fax)

Tetrahydrocannabinol

From Wikipedia, the free encyclopedia

Tetrahydrocannabinol (THC)



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ATC code	A04AD10
PubChem	CID 16078
DrugBank	DB00470
ChemSpider	15266 ✓
UNII	7J8897W37S ✓
ChEMBL	CHEMBL465 ✓
Chemical data	
Formula	$C_{21}H_{30}O_2$
Mol. mass	314.45
SMILES	eMolecules & PubChem
InChI	InChI=1S/C21H30O2/c1-5-6-7-8-15-12-18(22)20-16-11-14(2)9-10-17(16)21(3,4)23-19(20)13-15/h11-13,16-17,22H,5-10H2,1-4H3/t16-,17-/m1/s1 ✓ Key: CYQFCXCEBYINGO-IAGOWNOFSA-N ✓
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✓(what is this?) (verify)

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Pharmacology

The pharmacological actions of THC result from its binding to the cannabinoid receptor CB_1, located mainly in the central nervous system, and the CB_2 receptor, mainly present in cells of the immune system. It acts as a partial agonist on both receptors, i.e., it activates them but not to their full extent. The psychoactive effects of THC are mediated by its activation of the CB_1 receptor, which is the most abundant G protein-coupled receptor in the brain.

The presence of these specialized receptors in the brain implied to researchers that endogenous cannabinoids are manufactured by the body, so the search began for a substance normally manufactured in the brain that binds to these receptors, the so-called natural ligand or agonist, leading to the eventual discovery of anandamide, 2-arachidonoyl glyceride (2-AG), and other related compounds known as endocannabinoids. This is similar to the story of the discovery of endogenous opiates (endorphins, enkephalins, and dynorphin), after the realization that morphine and other opiates bind to specific receptors in the brain. In addition, it has been shown that cannabinoids, through an unknown mechanism, activate endogenous opioid pathways involving the μ_1 opioid receptor, precipitating a dopamine release in the nucleus accumbens. The effects of the drug can be suppressed by the CB1 cannabinoid receptor antagonist rimonabant (SR141716A) as well as opioid receptor antagonists (opioid blockers) naloxone and naloxonazine.[12]

The mechanism of endocannabinoid synaptic transmission is thought to occur as follows: First, transmission of the excitatory neurotransmitter glutamate causes an influx of calcium ions into the post-synaptic neuron. Through a mechanism not yet fully understood, the presence of post-synaptic calcium induces the production of endocannabinoids in the post-synaptic neuron. These endocannabinoids (such as anandamide), then, are released into the synaptic cleft, where binding occurs at cannabinoid receptors present on pre-synaptic neurons, where they modulate neurotransmission. Thus, this form of neurotransmission is termed retrograde transmission, as the signal is carried in the opposite direction of orthodox propagation, which previously was thought to be exclusively one way.

THC has mild to moderate analgesic effects, and cannabis can be used to treat pain. The mechanism for analgesic effects caused directly by THC or other cannabinoid agonists is not fully understood. Other effects include relaxation; euphoria; altered space-time perception; alteration of visual, auditory, and olfactory senses; loss of anxiety [13]; anxiety in neurotic individuals or individuals unfamilar with effects [14]; disorientation; increased creativity [15]; fatigue; and appetite stimulation (colloquially known as "the munchies"). The mechanism for appetite stimulation in subjects is believed to result from activity in the gastro-hypothalamic axis. CB1 activity in the hunger centers in the hypothalamus increases the palatability of food when levels of a hunger hormone ghrelin increase prior to consuming a meal. After chyme is passed into the duodenum, signaling hormones such as cholecystokinin and leptin are released, causing reduction in gastric emptying and transmission of satiety signals to the hypothalamus. Cannabinoid activity is reduced through the satiety signals induced by leptin release. It also has anti-emetic properties, and also may reduce aggression in certain subjects.

THC has an active metabolite, 11-Hydroxy-THC, which may also play a role in the analgesic and recreational effects of cannabis.

The α_7 nicotinic receptor antagonist methyllycaconitine can block self-administration of THC in rats comparable to the effects of varenicline on nicotine administration.[16][17]

Studies indicate that THC also has an anticholinesterase action [18][19] which may implicate it as a potential treatment for Alzheimer's and Myasthenia Gravis.

Toxicity

also: Health issues and effects of cannabis

has never been a documented human fatality from overdosing on tetrahydrocannabinol or cannabis in its natural form.[20] However, the THC pill Marinol is responsible for 4 deaths to date.[21] ormation about THC's toxicity is derived from animal studies. The toxicity depends on the route of administration and the laboratory animal. Absorption is limited by serum lipids, which can me saturated with THC, mitigating toxicity.[22] According to the Merck Index, 12th edition, THC has an LD_{50} (dose killing half of the research subjects) value of 1270 mg/kg (male rats) and mg/kg (female rats) administered orally dissolved in sesame oil.[23] The LD_{50} value for rats by inhalation of THC is 42 mg/kg of body weight.[23] One estimate of THC's LD_{50} for humans indicates that about 1500 pounds (680 kilograms) of cannabis would have to be smoked within 14 minutes.[24] This estimate is supported by studies which indicate that the effective dose of THC is at least 1000 times lower than the estimated lethal dose (a "therapeutic ratio" of 1000:1). This is much higher than alcohol (therapeutic ratio 10:1), cocaine (15:1), or heroin (6:1).[25]

Animal	Administration	LD_{50} [mg/kg]
rat	oral	666 [22]
rat (male)	oral	1270 [23]
rat (female)	oral	730 [23]
rat	inhalation	42 [23]
rat	intraperitoneal	373 [22]
rat	intravenous	29 [22]
mouse	intravenous	42 [22]
mouse	oral	482 [22]
mouse	intraperitoneal	168 [22]
monkey (LDLo)	intravenous	128 [22]
dog	oral	525 [22]

Research

The discovery of THC was first described in "Isolation, structure and partial synthesis of an active constituent of hashish", published in the Journal of the American Chemical Society in 1964.[4] Research was also published in the academic journal *Science*, with "Marihuana chemistry" by Raphael Mechoulam in June 1970,[26] followed by "Chemical basis of hashish activity" in August 1970.[27] In the latter, the team of researchers from Hebrew University Pharmacy School and Tel Aviv University Medical School experimented on monkeys to isolate the active compounds in hashish. Their results provided evidence that, except for tetrahydrocannabinol, no other major active compounds were present in hashish.

Studies in humans

mber of studies show that THC provides medical benefits for cancer and AIDS patients by increasing appetite and decreasing nausea. It has also been shown to assist some glaucoma patients by ing pressure within the eye, and is used in the form of cannabis by a number of multiple sclerosis patients, who use it to alleviate neuropathic pain and spasticity. The National Multiple Sclerosis Society is currently supporting further research into these uses.[28]

In August 2009 a phase IV clinical trial by the Hadassah Medical Center in Jerusalem, Israel was started to investigate the effects of THC on post-traumatic stress disorders.[29] THC and other cannabinoid agonists have been shown to be beneficial both in open label studies, as well as in laboratory experiments with animals to ameliorate post-traumatic stress disorders.
Preliminary research on synthetic THC has been conducted on patients with Tourette syndrome, with results suggesting that it may help in reducing nervous tics and urges by a significant degree. Research on twelve patients showed that Marinol reduced tics with no significant adverse effects. A six-week controlled study on 24 patients showed that the patients taking dronabinol had a significant reduction in tic severity without serious adverse effects. More significant reduction in tic severity was reported with longer treatment. No detrimental effects on cognitive functioning and a trend towards improvement in cognitive functioning were reported during and after treatment. Dronabinol's usefulness as a treatment for TS cannot be determined until/unless longer controlled studies on larger samples are undertaken.[30][31][32]

Studies in animals and in vitro

New scientific evidence is showing that THC can prevent Alzheimer's Disease in an animal model by preventing the inflammation caused by microglia cells which are activated by binding of amyloid protein.[33]
In *in-vitro* experiments, THC at extremely high concentrations, which could not be reached with commonly-consumed doses, caused inhibition of plaque formation (which are associated with Alzheimer's disease) better than currently-approved drugs.[34]

THC may also be an effective anti-cancer treatment, with studies showing tumor size reduction in mice conducted in 1975[35] and 2007,[36] as well as in a pilot study in humans with glioblastoma multiforme (a type of brain cancer).[37]

A two-year study in which rats and mice were force-fed tetrahydrocannabinol dissolved in corn oil showed reduced body mass, enhanced survival rates, and decreased tumor incidences in several sites, mainly organs under hormonal control. It also caused testicular atrophy and uterine and ovarian hypoplasia, as well as hyperactivity and convulsions immediately after administration, of which the onset and frequency were dose related.[38]

Research in rats indicates that THC prevents hydroperoxide-induced oxidative damage as well as or better than other antioxidants in a chemical (Fenton reaction) system and neuronal cultures.[39] In mice low doses of Δ^9-THC reduces the progression of atherosclerosis.[40]

Research has also shown that past claims of brain damage from cannabis use fail to hold up to the scientific method.[41] Instead, recent studies with synthetic cannabinoids show that activation of CB1 receptors can facilitate neurogenesis,[42] as well as neuroprotection,[43] and can even help prevent natural neural degradation from neurodegenerative diseases such as MS, Parkinson's, and Alzheimer's. This, along with research into the CB2 receptor (throughout the immune system), has given the case for medical marijuana more support.[44][45] THC is both a CB1 and CB2 agonist.[46]

Research indicating negative side-effects

Conceivable long-term ill effects of THC on humans are disputed, yet its status as an illegal drug in most countries makes research difficult.

studies claim a variety of negative effects associated with constant, long-term use, including short-term memory loss.[47][48] Other studies have refuted this by evidence of MRIs of long-term showing little or no difference to MRIs of the non-using control group. Using positron emission tomography (PET), one study reports altered memory-related brain function in chronic daily marijuana users.[49]

Some studies have suggested that cannabis users have a greater risk of developing psychosis than non-users. This risk is most pronounced in cases with an existing risk of psychotic disorder.[50] Other

ave made similar associations, especially in individuals predisposed to psychosis prior to cannabis use.[51] A 2005 paper from the Dunedin study suggested an increased risk in the opment of psychosis linked to polymorphisms in the COMT gene.[52] However, a more recent study cast doubt on the proposed connection between this gene and the effects of cannabis on the lopment of psychosis.[53] A literature review on the subject concluded that "Cannabis use appears to be neither a sufficient nor a necessary cause for psychosis. It is a component cause, part of a plex constellation of factors leading to psychosis."[54] Contrastingly, a French review from 2009 came to a conclusion that cannabis use, particularly that before age 15, was a factor in the lopment of schizophrenic disorders.[55] A 2008 German review reported that cannabis was supposedly a causal factor in some cases of schizophrenia and stressed the need for better education among the public due to increasingly relaxed access to cannabis.[56] Interestingly, however, though cannabis use has increased dramatically in several countries over the past few decades, the rates of psychosis and schizophrenia have generally *not* increased, casting some doubt over whether the drug can cause cases that would not otherwise have occurred.[57]

Research from 2007 reported a correlation between cannabis use and *increased* cognitive function in schizophrenic patients.[58]

A 2008 National Institutes of Health study of 18 chronic heavy marijuana users with cardiac and cerebral abnormalities (averaging 78 to 350 marijuana cigarettes per week, or 30 g to 270 g (1 to 9.5 ounces)) and 24 controls found elevated levels of apolipoprotein C-III (apoC-III) in the chronic smokers.[59][60] An increase in apoC-III levels induces the development of hypertriglyceridemia.

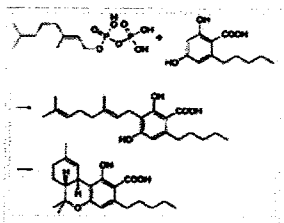
A 2008 study by the University of Melbourne of 15 heavy marijuana users (consuming at least 5 marijuana cigarettes daily for on average 20 years) and 16 controls found an average size difference for the smokers in the hippocampus (12 percent smaller) and the amygdala (7 percent smaller).[61] It has been suggested that such effects can be reversed with long term abstinence.[62] However, the study indicates that they are unsure that the problems were caused by marijuana alone. Furthermore, this correlation might suggest self-medication by individuals with these brain features.

A 2008 study at Karolinska Institute suggested that young rats treated with THC received an increased motivation for drug use, heroin in the study, under conditions of stress.[63][64]

A 2009 study found that there was a high prevalence of cannabis in the toxicologic analysis of homicide (22%) and suicide victims (11%) in Australia.[65] In a similar study from Sweden it was also found that suicide victims had a significant higher use of cannabis, but the authors found that "this was explained by markers of psychological and behavioural problems."[66]

Biosynthesis

In the cannabis plant, THC occurs mainly as tetrahydrocannabinol carboxylic acid (THC-COOH). Geranyl pyrophosphate and olivetolic acid react, catalysed by an enzyme to produce cannabigerolic acid,[67] which is cyclized by the enzyme THC acid synthase to give THC-COOH. Over time, or when heated, THC-COOH is decarboxylated producing THC. The pathway for THC-COOH biosynthesis is similar to that which produces the bitter acid, humulone in hops.[68]



Biosynthesis of THC

Metabolism

THC is metabolized mainly to 11-OH-THC (11-hydroxy-THC) by the human body. This metabolite is still psychoactive and is further oxidized to 11-Nor-9-carboxy-THC (THC-COOH). In humans and animals, more than 100 metabolites could be identified, but 11-OH-THC and THC-COOH are the dominating metabolites. Metabolism occurs mainly in the liver by cytochrome P450 enzymes CYP2C9, CYP2C19, and CYP3A4. More than 55% of THC is excreted in the feces and ~20% in the urine. The main metabolite in urine is the ester of glucuronic acid and THC-COOH and free THC-COOH. In the feces, mainly 11-OH-THC was detected.[69]

Detection in body fluids

and THC-COOH can be quantitated in blood or urine using chromatographic techniques as part of a drug use testing program or in a forensic investigation of a traffic or other criminal offense or ...picious death. The concentrations obtained from such an analysis can often be helpful in distinguishing active from passive use or prescription from illicit use, elapsed time since use and extent or duration of use.[70]

Dronabinol

Synthetic THC is known as *dronabinol*. It is available as a prescription drug (under Marinol[71]) in several countries including the United States and Germany. In the United States, Marinol is a Schedule III drug, available by prescription, considered to be non-narcotic and to have a low risk of physical or mental dependence. Efforts to get cannabis rescheduled as analogous to Marinol have not succeeded thus far, though a 2002 petition has been accepted by the DEA. As a result of the rescheduling of Marinol from Schedule II to Schedule III, refills are now permitted for this substance. Marinol has been approved by the U.S. Food and Drug Administration (FDA) in the treatment of anorexia in AIDS patients, as well as for refractory nausea and vomiting of patients undergoing chemotherapy, which has raised much controversy as to why natural THC is still a schedule I drug.[72]

An analog of dronabinol, nabilone, is available commercially in Canada under the trade name Cesamet, manufactured by Valeant. Cesamet has also received FDA approval and began marketing in the U.S. in 2006; it is a Schedule II drug.

In April 2005, Canadian authorities approved the marketing of Sativex, a mouth spray for multiple sclerosis patients, who can use it to alleviate neuropathic pain and spasticity. Sativex contains tetrahydrocannabinol together with cannabidiol. It is marketed in Canada by GW Pharmaceuticals, being the first cannabis-based prescription drug in the world (in modern times). In addition, Sativex received European regulatory approval in 2010.

Comparisons to medical marijuana

Main article: Medical marijuana

Dronabinol is known to produce mild side effects similar to cannabis.[*citation needed*] Many scientists believe that dronabinol lacks the beneficial properties of cannabis, which contains more than 60 cannabinoids, including cannabidiol (CBD), thought to be the major anticonvulsant that helps multiple sclerosis patients;[73] and cannabichromene (CBC), an anti-inflammatory which may contribute to the pain-killing effect of cannabis.[74] Others have countered that the effects of all of cannabis's cannabinoids have not been completely studied and are not fully understood.[*citation needed*]

It takes over one hour for Marinol to reach full systemic effect,[75] compared to minutes for smoked or vaporized cannabis.[76] Some patients accustomed to inhaling just enough cannabis smoke to manage symptoms have complained of too-intense intoxication from Marinol's predetermined dosages. Many patients have said that Marinol produces a more acute psychedelic effect than cannabis, and it has been speculated that this disparity can be explained by the moderating effect of the many non-THC cannabinoids present in cannabis. Mark Kleiman, director of the Drug Policy Analysis Program at UCLA's School of Public Affairs said of Marinol, "It wasn't any fun and made the user feel bad, so it could be approved without any fear that it would penetrate the recreational market, and then used as a club with which to beat back the advocates of whole cannabis as a medicine."[77] United States federal law currently registers dronabinol as a Schedule III controlled substance, but all other cannabinoids remain Schedule I, excepting synthetics like nabilone.

Regulatory history

... at least 1986, the trend has been for THC in general, and especially the Marinol preparation, to be downgraded to less and less stringently-controlled schedules of controlled substances, in the U.S. and throughout the rest of the world.

On July 13, 1986, the Drug Enforcement Administration (DEA) issued a Final Rule and Statement of Policy authorizing the "Rescheduling of Synthetic Dronabinol in Sesame Oil and Encapsulated in

...tin Capsules From Schedule I to Schedule II" (DEA 51 FR 17476-78). This permitted medical use of Marinol, albeit with the severe restrictions associated with Schedule II status. For ...e, refills of Marinol prescriptions were not permitted. At its 1045th meeting, on April 29, 1991, the Commission on Narcotic Drugs, in accordance with article 2, paragraphs 5 and 6, of the ...vention on Psychotropic Substances, decided that Δ^9-tetrahydrocannabinol (also referred to as Δ^9-THC) and its stereochemical variants should be transferred from Schedule I to Schedule II of that ...vention. This released Marinol from the restrictions imposed by Article 7 of the Convention [2].

...rticle published in the April–June 1998 issue of the Journal of Psychoactive Drugs found that "Healthcare professionals have detected no indication of scrip-chasing or doctor-shopping among the patients for whom they have prescribed dronabinol". The authors state that Marinol has a low potential for abuse.[78]

In 1999, Marinol was rescheduled from Schedule II to III of the Controlled Substances Act, reflecting a finding that THC had a potential for abuse less than that of cocaine, and heroin. This rescheduling comprised part of the argument for a 2002 petition for removal of cannabis from Schedule I of the Controlled Substances Act, in which petitioner Jon Gettman noted, "Cannabis is a natural source of dronabinol (THC), the ingredient of Marinol, a Schedule III drug. There are no grounds to schedule cannabis in a more restrictive schedule than Marinol"[79].

At its 33rd meeting, the World Health Organization Expert Committee on Drug Dependence recommended transferring THC to Schedule IV of the Convention, citing its medical uses and low abuse potential.

See also

- Cannabis (drug)
- Psychoactive drug
- Cannabinoids
  - Anandamide, 2-Arachidonoylglycerol, endogenous cannabinoid agonists
  - Cannabidiol (CBD), an isomer of THC
  - Cannabinol (CBN), a metabolite of THC
  - HU-210, WIN 55,212-2, JWH-133, synthetic cannabinoid agonists
- Medical cannabis
- War on Drugs
- Cannabis rescheduling in the United States
- Health issues and the effects of cannabis

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Further reading

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- DEA Moves Marinol To Schedule Three, But Leaves Marijuana in Schedule One. The Magic of Sesame Oil, Richard Cowan, MarijuanaNews.Com.
- Petition to Reschedule Cannabis (Marijuana) per 21 CFR §1308.44(b), Filed October 9, 2002 with the DEA by the Coalition for Rescheduling Cannabis.

External links

- U.S. National Library of Medicine: Drug Information Portal - Tetrahydrocannabinol